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The Hardy Orchid Society

Our aim is to promote interest in the study of Native European Orchids and those from similar temperate climates throughout the world. We cover such varied aspects as field study, cultivation and propagation, photography, taxonomy and systematics, and practical conservation. We welcome articles relating to any of these subjects, which will be considered for publication by the editorial committee. Please send your submissions to the Editor, and please structure your text according to the "Advice to Authors" (see website, January 2004 Journal, Members' Handbook or contact the Editor). Views expressed in journal articles are those of their author(s) and may not reflect those of HOS.

The Hardy Orchid Society Committee

Front Cover Photograph

Northern Marsh Orchid, *Dactylorhiza purpurella* at Kenfig NNR, photographed by Mike Clark. See the article on page 44.

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Editorial Note

This issue has two very welcome new authors who are well known orchid enthusiasts: Mike Clark and Simon Harrap. Mike is an excellent photographer and authority on Kenfig and both of these are featured in his contribution. Simon will be known to most through his book "*Orchids of Britain and Ireland*"; his article continues discussion on the "Princess Risborough Helleborines". The general issues that this HOS debate has raised are reviewed in the first of two major articles by our President, Prof. Richard Bateman. We will try to draw this interesting discussion to a close in *JHOS*, so if there are any last words on the subject do submit them soon. Robert Thompson and Tom Curtis draw attention to the important "Orchid**Ireland**" project that aims to advance knowledge of the orchid flora in the island of Ireland. Also, there are two new books dedicated to Ireland's orchids just published or about to be published. We plan to include a review of "*Ireland's Wild Orchids: A Field Guide*" by Brendan Sayers & Susan Sex and "*The Orchids of Ireland*" by Tom Curtis & Robert Thompson" in the July *JHOS*.

Chairman's Corner

David Hughes

The New Forest is snowbound as I write this, a good time to be thinking of the year ahead and the orchids we will find and grow. Christine and I can't wait too long so we're off to Cyprus tomorrow to catch a few early *Ophrys*. Wearing my field meeting coordinator's hat, can I remind you that the list of meetings for 2009 was published in the January journal. These are spread around the country as best I could arrange and if there are gaps please let me know if you might fill them. If you haven't already done so, do book yourselves in for these trips. To prevent the risk of

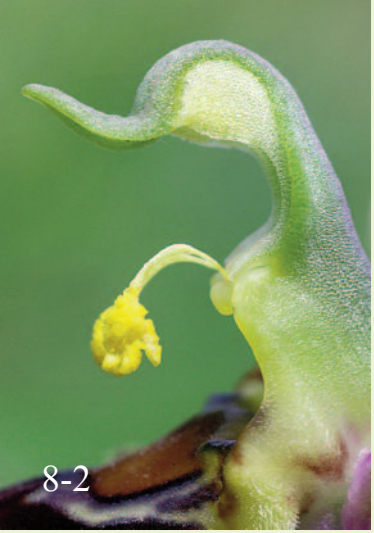
trampling, numbers on each field trip have to be limited, so I regret that you will be disappointed if you don't book promptly. Field trips are listed on the HOS website, which Bill Temple assiduously keeps up to date, recordsing when a trip is full up. When we consider field work we must consider our duty to protect fragile locations and threatened species. It is important that members do not give out sensitive information unless confident about the reliability of the receiver. Refusal may cause annoyance but that is much better that the risk of damage to a special site or plant.

The start of the new orchid year means the end of the old. The boundary for us is marked by the AGM at Kidlington. All members are entitled to attend and vote without charge. This is the time the committee renews itself; several long serving members are standing down and I am happy to say that I have volunteers for the majority of the vacant posts; who and which will be listed in the AGM Agenda. I will give details in my Chairman's report. All members are free to stand for office themselves but please notify me before the AGM if you do wish to stand or propose another, with their agreement. Some of you will remember that we had some difficulty with the digital projector at Wisley. We would like someone to run the projector on the day of meetings. Please contact me. Also at this meeting, we have the Plant Show. In order to ensure its success, please bring along as many entries as possible. Last year we had a good number of entries in the beginners' and non-competitive classes. Please do what you can to continue this encouraging trend. Full entry details are on the hand-out, on the website, and in the HOS Handbook. I look forward to hearing from you, meeting you at Kidlington and in the field. Have a good year of orchid hunting and culture.

Photographic Competition 2008

A further selection of photographs from the 2008 Photographic Competition is shown on the following two pages. As before, they are identified by a number indicating the class followed by the place.

3-1 Ron Harrison - *Himantoglossum hircinium*
3-2 Tony Hughes - *Dactylorhiza fuchsii*
6-2 Sean Cole - *Neotinea ustulata*
8-2 Tony Hughes - *Ophrys apifera*
8-3 Neville Roberts- *Habenaria radiata*
9-2 Alan Blackman - *Orchis mascula*
10-2 John Spencer - *Ophrys apulica*
11-2 Nigel Johnson - *Ophrys israelitica*
12-2 Rosemary Webb - *Cephalanthera longifolia*
13-1 Peter Fleckney - *Anacamptis pyramidalis*
13-2 Lorne Edwards - *Orchis italica*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Programme for Kidlington, Sunday 19th April 2009

09.00 Hall opens - Plant Show exhibits and entries to be staged by 10.00
10.00 Tea / Coffee
10.30 AGM
11.00 Simon Andrew - Orchids of France over 40 years
12.00 Paula Rudell - Close up and Personal, Microscopic Studies of European Orchid Flowers
12.35 Prof. Richard Bateman - Do Bigger Leaves Mean Longer Spurs, an Update on the HOS *Platanthera* Survey
13.00 Lunch & Tea / Coffee
14.00 Judge's comments on the Plant Show
14.30 Iain Wright - An Enigmatic Variation
14.40 Simon Tarrant - Orchids of Iceland
14.50 Short break
15.00 Phil Seaton - Orchid Growing from Seed
16.00 Tea / Coffee
17.00 Vacate Hall

Orchids of Kenfig NNR, South Wales

Mike Clark

Kenfig National Nature Reserve is located on the south-eastern edge of Swansea Bay and it is renowned for its extensive sand dunes (Fig. 1). The large tidal range, onshore winds and low-lying coastal hinterland have contributed to the development of the dune system, which extends inland for over 3km at its widest point. The exceptional wetness of the Kenfig dune system is of national significance. Many of the slacks flood in winter and their peaty soils can remain wet during all but the driest summers. Kenfig has some of the most important and species-rich dune slack vegetation in the UK.

Fifteen species of orchid are known to flower regularly. The speciality is the largest UK population of the Fen Orchid, *Liparis loeselii* var. *ovata* (Fig. 2). The most common orchid on site is the Marsh Helleborine, *Epipactis palustris*. In spring, various different colour forms of the Green Winged Orchid, *Anacamptis* (*Orchis*) *morio* (Fig. 8) and the Early Purple Orchid, *Orchis mascula*, are well worth seeing. In late July and into August, the helleborines, *Epipactis helleborine*, *Epipactis helleborine* var. *neerlandica* (Fig. 3) and *Epipactis phyllanthe*s var. *vectensis* (Fig. 7) can be found. The unusual chlorophyll-free variant of the Broad Leaved Helleborine, *Epipactis helleborine* var. *albifolia* (Figs. 4 & 5) has been recorded at Kenfig. In addition to the Early Marsh Orchid, *Dactylorhiza incarnata* var. *coccinea* (Fig. 6) and the Southern Marsh Orchid, *Dactylorhiza praetermissa*, the Kenfig dunes support the Northern Marsh Orchid, *Dactylorhiza purpurella* (cover photograph), at the southerly extreme of its UK distribution.

It is worth noting that to view *Liparis loeslii* it is advisable to go on a guided walk to avoid large numbers of orchids being inadvertently trampled by visitors as has happened in previous years. I am happy to lead groups to see the orchids and to advise on flowering times. Contact Mike Clark on 01656 743343.

Photographic Profile of Kenfig and Some of its Orchids

Figure 1: The Kenfig habitat Figure 2: *Liparis loeselii* var. *ovata*
Figure 3: *Epipactis helleborine* var. *neerlandica*
Figures 4 & 5: *Epipactis helleborine* var. *albifolia*
Figure 6: *Dactylorhiza incarnata* var. *coccinea* Figure 7: *Epipactis phyllanthe*s
Figure 8: *Anacamptis* (*Orchis*) *morio* pink form
Figure 9 *Anacamptis pyramidalis* Figure 10 *Gymnadenia conopsea* var. *friesica*
Photos by Mike Clark


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A Southern France Miscellany

Les Lewis

A leisurely tour with my wife across southern France in late May 2006 provided an excellent opportunity to look for some of the later-flowering *Ophrys* and other orchids of the region. Our first orchid trip was to the Gapeau valley near Méounes-les-Montrieux (Var) for the endemic *Ophrys philippi*. This unusual orchid is thought to be a stabilised hybrid between *O. scolopax* (from which it derives its lip shape) and *O. apifera* f. *botteronii* (which gives the irregular speculum) (Delforge, 2005), although this origin does not yet appear to have been confirmed by molecular analysis. It was first discovered in 1859 but, from 1920s onwards, it was not seen until 2000 when it was rediscovered by a local botanist (Bournérias, 2005). We had anticipated difficulties in finding this orchid as the precise localities of the few places in which it has been recorded seemed to be well-guarded secrets. However, in the event, a photographer stretched out precariously on a steep, almost bare, rocky bank, provided a more accurate indicator than any GPS reference could have done.

Our next orchid trip was to shores of the Étang de Berre, a large lagoon north-east of Marseille. Here we found *Ophrys vetula* which grows in south-east France and just over the Italian border in Liguria (Souche, 2004, Delforge, 2005). This has medium-sized flowers intermediate between *O. scolopax* and *O. fuciflora* in appearance. Although considered by some authors to be a distinct species, it has been suggested (Bournérias, 2005; Kreutz, 2004) that it may be the same as *O. corbariensis* (which, by chance, we were to see a few days later). This was a very early site – in May the grass had turned to hay and the only other orchid in evidence was the Lizard Orchid, *Himantoglossum hircinum*, which was already going over, even though a week later not much further north in the Tarn Valley and three weeks later near Bristol, we found plants still in bud.

Figure 1: (above): *Ophrys corbariensis*, Lagrasse (Aude), 18th May 2006
Figure 2: *Ophrys philippi*, Méounes-les-Montrieux (Var) 16th May 2006
Figure 3: *Ophrys vetula*, Marignane, (B. du Rhone), 17th May 2006
Figure 4: *Ophrys aveyronensis*, Lapanouse-de-Cernon (Averyon), 21st May 2006
Figure 5: *Ophrys aymoninii*, Nant (Averyon), 21st May 2006
Photos by Les Lewis


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Figure 6: *Ophrys magniflora*, Talairan (Aude) 18th May 2006
Photo by Les Lewis

Further west in the Corbières region, we stayed in a converted castle at Couiza (Aude) in the heart of the Cathar country just below Rennes-le-Chateau. This is the intriguing hilltop "Village of Mystery" in the book "*Holy Blood and Holy Grail*" on which, it was claimed in a copyright action, the best-selling "*Da Vinci Code*" was partly based. There are several interesting orchids in the region. Near Talairan, growing with *O. lutea* and *Serapias vomeracea*, we found *Ophrys magniflora*, a large-flowered member of the attractive, shiny-patterned *O. bertolonii* group. Although considered by some as a distinct species endemic to south-west France (Souche, 2004, Bournérias, 2005), others regard it as a form of *O. catalaunica* or *O. aurelia* (Delforge, 2005; Kreutz, 2004).

A few kilometres from Talairan, on our way to the attractive but over-touristy fortified town of Carcassone, a promising roadside bank near Lagrasse did not disappoint. Most conspicuous of the several orchids present was a single spike of *Ophrys corbariensis*. This is a large-flowered *O. scolopax*-type orchid, the labellum being 18mm long. Assuming that it is different from the smaller-flowered *O. vetula* from south-eastern France (see above), it is endemic to the Corbières region. A few yards along the bank was an even more obscure Corbières rarity, the unnamed late-flowering form of the Small Early Spider Orchid, *O. araneola* mentioned in Bournérias (see *O. virescens* Observations, page 376).

Figure 7: *Ophrys sulcata*, Bulgarach (Aude), 19th May 2006
Photo by Les Lewis

Books on French orchids often feature photos from the tiny Corbières village of Bulgarach. In a small roadside meadow on the outskirts of the village, we quickly found *Ophrys sulcata*. This is an attractive member of the *O. fusca* family with small, neat deeply-grooved flowers often attractively tinged with reddish-purple. A few metres away were a few small *O. fusca* type orchids

with a differently shaped lip and more distinct omega. Although not entirely certain, we thought that these were probably *O. vasconica* as they matched the description and photo in Bournérias (2005). This species is thought to be of hybrid origin between early-flowering Iberian *O. dyris* with its a clear distinct omega, and another *O. fusca* type, in this case the late-flowering *O. sulcata* with its indistinct omega (Souche, 2004; Bournérias, 2005). If so, this might well explain its variable flowering time (March to mid-May) and appearance (in particular, as illustrated here and in Bournérias, plants from Bulgarach are significantly different from those from Spain and Portugal – a rare case of "lumping" in *Ophrys* taxonomy). Also present in the small meadow were *Orchis anthropophora*, *O. militaris*, *O. purpurea* and *Serapias lingua*.

Figure 8 (top): *Ophrys vasconica*, Bulgarach (Aude), 19th May 2006
Figure 9 (bottom): *Ophrys vasconica*, Alte (Portugal), 16th April 2003
Photos by Les Lewis

We were too late for *Neotinea* (*Orchis*) *conica* at Parahou, another small village in Corbières, perhaps its only location in France. However, a good range of other orchids were in flower, including some splendid *Ophrys scolopax* and, closely accompanied by their parents, a few tall *Orchis purpurea x militaris* hybrids.

A stay just outside Millau (Aveyron), provided an excellent view from our hotel window of its impressive bridge over the River Tarn, as well as an opportunity to see two orchid specialities of the region. The first of these was the local yellow-edged Fly Orchid, *Ophrys aymoninii*, which we found both at Nant, south-east of Millau and high above the Gorge du Tarn to the north-east. The second speciality of the region was the showy *Ophrys aveyronensis* with its bright pink perianth and large speculum which is sometimes in the form of an H and sometimes marbled. In France, this is restricted to a short corridor of land just a few kilometres

Figure 10: *Dactylorhiza occitanica*, Mazauges (Var), 22nd May 2006
Photo by Les Lewis

wide south of Millau, but similar plants have been recorded more widely in Northern Spain (Souche, 2004; Bournérias, 2005). Although listed as a species in these and other books, it now seems that it may be a hybrid which would explain its extremely variable lip pattern.

An intended trip to the apparently spectacular Cirque de Navacelles - 300m deep natural ampitheatre in the Cévennes - was thwarted by the closure of the access road for major repair. So instead, we searched out a few early flowers of *Orchis fragrans* growing along the bank of a dried up stream at Blandas (Gard). Returning east, our final orchid trip was to see the marsh orchid *Dactylorhiza occitanica* which we found growing in a sunny, damp clearing in a small wood at Mazauges (Var). This is a tall plant, similar to the Southern Marsh Orchid, *D. praetermissa*, but with a broad, distinctly trilobed lip. It is endemic to southern France where, like other wetland plants, it is very threatened by development, changes in agricultural practice and, more recently, dry winters.

I am grateful to Alan Blackman, Philip Oswald and Mike Parsons for invaluable guidance on some of the sites mentioned.

References

Baigent, M., Leigh, R. & Lincoln, H (1982). *The Holy Blood and the Holy Grail*, Jonathan Cape, London

Bournérias, M. et Prat, D. (2005). *Les Orchidées de France, Belgique et Luxembourg*, 2nd ed., Parthénope Collection, Paris

Brown, D. (2003). *The Da Vinci Code*, Bantam Press, London

Delforge, P. (2005). *Guide des orchidées d'Europe, d'Afrique et du Proche-Orient*, 3rd. edition, Delachaux et Nestlé, Paris

Kreutz, C. A. J. (2004). *Catalogue of European Orchids*, Kreutz Publishers, Landgraaf

Souche, R. (2004). *Les Orchidées sauvages de France*, Les Créations du Pélican/VILO, Paris

What's in a Name? 1. The Heavy Responsibility of Using a Previously Described Name

Richard Bateman

Names old and new

Volume 5 of *JHOS* witnessed a highly significant series of articles regarding the application of rarely used names for species or infraspecific taxa (in order of decreasing status, these are subspecies, variety and form) to orchid populations in the British Isles. Specifically, the basis for several taxonomic novelties recognised by the exceptionally experienced orchidologist Karel Kreutz (2008) was questioned, both conceptually and pragmatically, by Cole (2008), leading to a response from Lewis (2008). This constructive and balanced exchange usefully touched on several important issues that bridge the often contrasting worlds of plant taxonomy, vegetation surveying/mapping and *in situ* conservation. It is these general issues, more than the taxonomic specifics of the *JHOS* exchanges, that I wish to address in this article. My aims are to describe the many consequences of simply employing a formal name, and to explain how a simple field record of a plant can have a disproportionate domino effect way beyond its original intended significance (and to relate, in passing, how that domino effect regularly impacts on my own life).

But first, I should briefly review the spark that ignited the debate in *JHOS*. On the basis of visual inspection during recent field trips to the UK, Kreutz (2008) downgraded the single population of *Epipactis sancta* on Lindisfarne to a subspecies of *Epipactis dunensis*, formally described a small number of complex and long-debated helleborine populations in the Tyne Valley that co-occur with the now discredited 'species' *Epipactis* "*youngiana*" as *E. dunensis* subsp. *tynensis*, and identified as *Epipactis leptochila* var. *cordata* a single small population of helleborines in the Buckinghamshire Chilterns. He also confirmed the occurrence at Kenfig dunes in Glamorgan of both the Welsh endemic *Epipactis phyllanthes* var. *cambrensis* and *Epipactis helleborine* subsp. *neerlandica*, a taxon characteristic of Dutch dune systems. Lastly, he made from the same locality the first UK record of *Gymnadenia conopsea* var. *friesica*, previously known only from the coasts of the Netherlands and Germany.

Thus, Kreutz's article aimed to modify the infraspecific taxonomy of no less than six kinds of orchid. Of these six kinds, five are arguably confined to a single UK locality. Moreover, one (*friesica*) is new to the UK and one (*tynensis*) is new to science, being formally described by Kreutz as recently as 2007. Given that these taxonomic innovations were advocated in a short article in an informal publication (*JHOS*) without any explicit reference to supporting analytical data (e.g. morphometrics, DNA analysis), and without definitions of the author's method of distinguishing between the various taxonomic ranks, I can fully understand why Cole (2008) was

moved to ask "what are the rules"? I would, however, add a supplementary question, "the rules for what?" Greater precision is needed because Kreutz's (2008) article reflects two distinct, albeit inter-dependent, activities. The first activity is assigning plants to previously described taxa using a pre-existing name – an activity that most of us indulge in frequently, casually terming it "identification"! Far fewer of us indulge in the second activity, describing taxa that are new to science; this obliges us to coin a brand new name. As the "rules" governing these two activities are significantly different, I will focus on approaches to naming previously described taxa in Part 1 of the article, and save the description of new taxa for Part 2.

At the risk of beginning my story with the punchline, as was clearly demonstrated by the exchanges in *JHOS*, **there are no rules governing plant identification**. Any of us can visit any locality anywhere and apply to any plant any pre-existing name that we wish. And we can use that name in any kind of publication that we wish (editors permitting). The real question is how many members of our target audience will subsequently accept our identification and our name. This *post hoc* assessment also has no rules; consequently, it is not uncommon for a particular taxon to be referred to under three or more names by successive speakers at each HOS meeting. However, there are what might best be described as filters of information, designed to at least provide us with credible lists of what might best be summarised as "name, rank and serial number".

Botanical recording in the UK

The system of botanical recording in the UK is (or certainly should be) the envy of the rest of the world. The bulk of active recording is conducted by members of the Botanical Society of the British Isles (BSBI). The results are summarised in a plant atlas (and associated databases) based on 10 x 10 km mapping units termed hectads (Preston et al. 2002), supported by many more detailed "vice-county" floras typically based on 2 x 2 km units termed tetrads. Still greater accuracy regarding localities can be obtained from the web-based derivatives of this monumental dataset, which are managed by BSBI in collaboration with the government-funded Biological Records Centre, recently transferred to Wallingford. The information is made available through the BSBI's own website (www.bsbi.org.uk) and through the taxonomically broader 'Gateway' website of the National Biodiversity Network (NBN: www.nbn.org.uk).

The taxonomic underpinning for this entire network is currently provided by the second edition of Clive Stace's single-volume *New flora of the British Isles* (Stace 1997), which has dominated British botany since its first edition was published in 1991 and is currently undergoing further revision in preparation for a third edition. Although its dominance discourages taxonomic anarchy, Stace's excellent flora may not remain dominant in the field unless it is frequently updated to take account of

recent botanical research. Some botanists favour the alternative UK flora that is being published over many years in five parts by Sell & Murrell. Fortunately for us, the first part of this series to be published was the one that covered the orchids and other monocots (Sell & Murrell 1996). This work is much more detailed than Stace, rejects the binomial colloquial names (e.g. uses Early Marsh Orchid rather than Early Marsh-orchid) that were borrowed by Stace from Dony *et al*. (1986) and, most significantly, makes extensive use of lower taxonomic ranks (variety and form) that are ignored by Stace but beloved of many orchidologists. Superimposed on this entire system is a network of unpaid referees coordinated by BSBI to answer enquiries from field surveyors regarding their specialist taxonomic groups. In the case of orchids, Ian Denholm and I have acted as co-referees for the most troublesome UK orchid genus, *Dactylorhiza*, for 20 years. In 2008, we took responsibility for all of the remaining orchid genera other than *Epipactis*, which remains the preserve of Newcastle-based botanist and long-serving referee John Richards.

So presumably, in my role as BSBI orchid co-referee, I routinely use the list of names provided by Stace (1997) in his flora and Preston et al. (2002) in their plant atlas? Well, no I don't, though I did at least use Stace as a starting point for developing my own classification. But much of my research on British and European

Figure 1: Two colour morphs of *Orchis anthropophora*, a species recently transferred to *Orchis s.s.* from *Aceras* on scientific evidence (Sicily).
Photo by Richard Bateman

orchids has been published since Stace's last edition appeared in 1997. I finally staked my colours to the mast in the guise of a formal outline classification that was previewed on the HOS website before finally being published by the BSBI in 2006 (Bateman 2006). As HOS members would expect, I used the substantially revised circumscription of orchid genera that reflects over a decade of DNA-based research (summarised by Bateman 2007: Fig. 1). When deciding which species to recognise, I combined my own group's population-level research conducted on several genera over the past three decades with evidence from other similar studies published in the recent scientific literature.

I am confident that my species-level classification of British and Irish orchids is based on a substantially stronger body of scientific information than any that has preceded it. And of course I am delighted that it has been accepted by two of the three monographs recently published on the orchid flora of the British Isles (Foley & Clarke 2005; Harrap & Harrap 2005) and that it guides many of the articles published in *JHOS*. But, frankly, the specialist orchid literature is not the key battleground. The critical breakthrough would be to see my classification reproduced in the forthcoming third edition of Stace's flora, after which it would almost certainly be adopted by the BSBI–NBN recorders network and thus by the major conservation agencies such as Natural England (cf. Cheffings & Farrell 2005).

Gaining acceptance of such work is actually a long, drawn-out process, arguably more political than scientific. Consequently, classifications, and the many tools that rely on them (floras, plant atlases, identification keys and, most critically, conservation plans), inevitably lag well behind the scientific cutting edge. An additional threat to my ambitions could increasingly come from mainland Europe, where the taxonomic conclusions of myself and my colleagues have met greater resistance than in the UK (e.g. Tyteca & Klein 2008). Continental plant recording is gradually catching up with that in the British Isles and various schemes now underway that are designed to develop trans-European lists of recommended plant names will certainly supersede the now seriously outdated *Flora Europaea* (Moore et al. 1980). However, I suspect that they will recognise far more species than I consider to be scientifically justifiable.

Classification versus identification

I should perhaps also note at this point that my classification alone (Bateman 2006) is, for all practical purposes, useless, because it consists only of a list of recommended names (as I said, "name, rank and serial number"). Names alone cannot be used to identify anything; for that, we need the descriptions of the taxa added to this basic framework, such as the excellent accounts of morphology provided by Foley & Clarke (2005) and Harrap & Harrap (2005). Nonetheless, it is worth considering at this point how effective you have found the descriptions in various books to be for

identifying your problem plants, and speculating on how much effort the authors actually put into gathering together the necessary information. Did the authors study and measure plenty of plants in the field across the full geographic range of the species, or did they simply borrow information (at least some of it inevitably misleading) from previous studies? Recycling is a common practice when writing floras and monographs, and it is just as easy to recycle errors as accuracies.

I am confident that all HOS members will frequently have encountered supposedly diagnostic characters that proved to be nothing of the kind, either because the description they were using was of inadequate quality or because the species or infraspecific taxa that were being considered as alternative identifications are not in fact distinct and do not in fact have any biological reality. The alternative approach is, undeniably, seriously challenging. I have spent 30 years painstakingly measuring, mostly in my own time, populations of *Dactylorhiza*, *Gymnadenia*, *Platanthera*, anthropomorphic *Orchis* and *Ophrys*. Even after all this effort, I cannot guarantee that my morphometric descriptions will work as effectively for Continental populations as for their presumed equivalents in the British Isles, where the bulk of my data has been collected.

Arguably, the strongest selling point for my classification is that it is underpinned by several different kinds of DNA-based analyses. Instead of being forced to guess whether the genera that I recognise are 'inclusive' (cohesive) and natural (Bateman 2007), and the species that I recognise are reproductively isolated from each other and so true biological species, I have strong data to support my circumscriptions of both genera and species. I happily predict that the temporary advantage I have gained as a result of my recent existence as a professional systematic botanist will soon be lost; there is an excellent prospect that, given current technological advances, all of us will soon have access to DNA-based identification technology that will not require a PhD to use (Bateman 2009). This technology will not – or at least should not – replace traditional identification based on morphology, but it will provide an exceptionally valuable independent test of morphology-based identification. At present, our only meaningful choice is among different classifications and descriptions, rather than among contrasting analytical approaches.

Infraspecific taxa are a mixed blessing

At this point, I should explain why I have focused my work on genera, species and, to a lesser extent, subspecies (like Stace 1997), rather than varieties and forms (like Sell & Murrell 1996). Why am I fighting shy of tackling infraspecific taxa? Firstly, the level of scientific knowledge of particular species is spread unevenly across genera. Ironically, we know most about the more contentious genera, such as *Dactylorhiza* and *Epipactis*, as they have inevitably attracted most attention from researchers. My first ever public address was given in 1985 to a conference organ-

ised in Liverpool by the BSBI on the topic of especially problematic taxa, termed "critical groups". I began my lecture on *Dactylorhiza* by defining a critical group as "one that too many taxonomists have studied"! My opinion has not changed in the intervening decades. My second excuse for caution in dealing with infraspecific taxa is that there are no widely accepted definitions of subspecies, variety and form (and few taxonomists still believe that both variety and form are needed, though they disagree about which of the two ranks should be retained). Thirdly, and perhaps partly in consequence, these lower ranks have gone out of fashion among conservationists, who rightly emphasise the undeniably more important species level. Most, including the UK's vascular plant Red Data Book (Cheffings & Farrell 2005, available online at jncc.gov.uk/page-3354), reject varieties and forms as being entities worthy of conservation.

Basically, one can either view varieties and forms negatively, as utterly irrelevant taxonomic clutter, or positively, as a means of conveying in a simple name a very precise morphology – albeit a morphology that is unlikely to be of much biological significance. The real problems begin when forms and varieties are promoted to the level of subspecies or, ever more frequently, species, and so must be taken more seriously for conservation purposes. Entities of very different value are forced into a pseudo-egalitarian state where each is falsely viewed as being of equal value. And any one taxonomist can decide to elevate the status of a particular name without first indulging in any form of broader consultation.

Back to our case-studies

We have at last accrued sufficient background information to reconsider the particular examples that prompted me to write this article – the recent statements on the status of certain infraspecific taxa of *Epipactis* and *Gymnadenia* in the UK by Kreutz (2008). Many taxa have been formally described on the basis of herbarium specimens by specialists with no experience of the plants in the field; there is no requirement in taxonomy for the plants in question to have been seen in the flesh. In contrast, Kreutz carefully examined these plants in the field. On the other hand, these identifications were made without pursuing any statistically-based morphometric or genetic analyses of the plants in question, relying primarily on visual inspection, while also taking into consideration the results of previous scientific investigations in cases where such data are available. The great majority of European orchid taxa owe their original descriptions to this traditional approach.

As noted by Lewis (2008), available genetic data would allow recognition of *Epipactis sancta* as either an unusually poorly differentiated species or an unusually well differentiated subspecies of *E. dunensis*. Given the relatively equivocal genetic data, the choice should perhaps be made on the basis of careful statistical comparison of the morphology of the Lindisfarne population with other closely

related helleborines. Such work has not yet been published, either for *E. sancta* or for the even more problematic Tyneside populations of *E. dunensis*. Because these have only recently been given a brand new name, *E. dunensis* subsp. *tynensis*, they will be discussed in the second part of this article.

Perhaps the strongest disagreement between Kreutz (2008) and Lewis (2008) on the one hand and Cole (2008) on the other concerned the nature of a single, even smaller population of *Epipactis* in the Buckinghamshire Chilterns; should it be referred to *Epipactis leptochila* subsp. *neglecta*, elevated by some authorities to full species status as *E. neglecta* and downgraded by other authorities to a variety (e.g. Delforge 2006)? Or should it be referred to *E. leptochila* var. *cordata*, a name coined in the relatively obscure British orchid monograph of Brooke (1950, p. 123) and, as far as I can tell, not used since except for a passing dismissive reference by UK *Epipactis* specialist Young (1962) and another passing, albeit less dismissive, reference by Ettlinger (1997, p. 28)? Such immediate obscurity is usually a sign of a name that is devoid of any real utility. Sadly, the converse is not true; names of absolutely no utility are capable of achieving extraordinary popularity!

Figure 2: *Epipactis "youngiana"* A taxon recently demoted from a species to a variety on scientific evidence (Tyneside).
Photo by the late Derek Turner Ettlinger.

Both identifications (as subsp. *neglecta* and var. *cordata*) were in effect challenged by Cole (2008), who questioned the assignment of the plants to *E. leptochila* of any stripe. These controversial plants could even be the result of hybridisation between the self-pollinating *E. leptochila* and one of the co-occurring cross-pollinated species, either *E. purpurata* or, more likely, *E. helleborine* (reflecting a cautionary note on the confusion of hybrids with *neglecta* sounded by Delforge 2006). In this respect, this population raises the same issues that used to dog the now firmly discredited *Epipactis* "*youngiana*" (Squirrell *et al*. 2002; Hollingsworth *et al*. 2006: Fig. 2) – a much-discussed taxon that finally seems to have settled down to a more rational life as a variety (e.g. Delforge 2006) rather than as a far more exalted species endemic to the UK. As noted by Lewis (2008), I am presently sitting on DNA samples that should easily settle the question of hybrid origin, though at the time of writing these have not yet been analysed.

Moving on to *Epipactis phyllanthes*, this was the subject of an exceptionally thorough (albeit traditional) series of taxonomic studies by Young (e.g. 1952). Although he recognised four varieties of this species, Young nonetheless chose to synonymise (amalgamate or "sink") the previously described var. *cambrensis* from Kenfig into his own far more widespread var. *pendula*, considering only the second of these two names to be valid (cf. Brooke 1950; Young 1952; Lewis & Spencer 2005). The reappearance of *cambrensis* at Kenfig after a long apparent absence, meticulously described by Lewis & Spencer, offers a welcome opportunity to bring modern scientific methods to bear on these few enigmatic plants. However, given that we have already failed to find any molecular differences between Young's four varieties of *E. phyllanthes*, it seems most unlikely that there will be anything different or special about the DNA of this fifth erstwhile variety. And once again, the much-needed comparative morphometric work has not yet been performed to properly explore its morphology.

Thus far, we have considered only supposed endemic taxa confined to the British Isles, but we now move on to the two taxa that were originally described in Kreutz's native Netherlands and are now hypothesised to occur at Kenfig. Dutch *neerlandica* have also previously been analysed genetically and found to be indistinguishable from 'normal' *E. helleborine* (e.g. Ehlers & Pedersen 2000). In my opinion, this knowledge immediately relegates *neerlandica* from a subspecies to a variety at best, analogous to "*youngiana*". More importantly, in the unlikely event that the Kenfig plants do eventually prove to be genetically distinct from Dutch *neerlandica* and from the co-occurring *E. helleborine sensu stricto*, then of course they will not be *neerlandica* at all, but something different and possibly new. And for this taxon, even morphometric comparison would be insufficient to demonstrate its right to recognition at any taxonomic level. We would also need cultivation experiments to demonstrate that these are not simply plants whose appearance has been modified by the environmental pressures of the austere life that they suffer in the exposed Kenfig dunes. How many of their supposedly characteristic features would survive transfer to a moist woodland habitat? In the absence of answers to such questions, the decision of Lewis & Spencer (2005) to refer to these problematic populations cautiously, as "aff. *neerlandica*" and "aff. *youngiana*", appears eminently sensible.

Lastly, Kreutz (2008) makes the first UK record of *Gymnadenia conopsea* var. *friesica* at Kenfig, comparing it with *G. conopsea* "var. *conopsea*", "var. *borealis'*" (Fig. 3) and "var. *densiflora*". For many years these three taxa have been most commonly regarded as subspecies in the UK (cf. Stace 1997), but their distinct genetics and habitat preferences here (calcareous grasslands, heathland, calcareous wetlands, respectively) encourage their recognition as full species, despite their more subtle morphological differentiation (Bateman 2006). In contrast, I am not aware that any morphometric or genetic data are available for the duneland taxon named *'friesica'*,

Figure 3. *Gymnadenia borealis*
A taxon recently promoted from a subspecies to a species on scientific evidence (Aviemore).
Photo by Richard Bateman

either from its native Netherlands or from the UK. Shouldn't we discover whether this putative infraspecific taxon has any real existence in its native Netherlands before taking the brave step of recording it 550 km distant in Kenfig dunes?

As it happens, I photographed plants at Kenfig dunes in July 1981 that were identical in appearance to those from Kenfig illustrated by Kreutz (2008). I ascribed them in my field notes to the taxon that at that time was most commonly named *G. conopsea* subsp. *densiflora*. But I did so without any attempt to conduct science on the plants, and in ignorance of the existence of any Dutch taxon named "*friesica*". My ignorance may be forgivable, as although the name appeared in Kreutz's superb orchid flora of the Netherlands (Kreutz & Dekker 2000, p. 59), it is absent from his subsequent, carefully researched compendium of European orchid names (Kreutz 2005), and from the aforementioned, and supposedly definitive, International Plant Names Index database (IPNI). It does not help that the original descriptions of both *Epipactis leptochila* var. *cordata* (Brooke 1950) and *G. conopsea* var. *friesica* (Schlechter 1919) are poor. But this is a "legislative" point rather than a biological one. The key question is whether *Gymnadenia* populations growing in coastal calcareous marshes show significant differences in either morphology or genetics from similar plants occupying calcareous marshes further inland. This seems unlikely, given that the original description simply refers to its dwarf habit and loose inflorescence – but then few botanists recognised the true significance of *G. borealis* until very recently. Perhaps we should explore whether "*friesica*" is genuinely distinct from *G. densiflora*, rather than simply guessing that this is so?

Authoritative versus authoritarian

To conclude Part 1, I am not arguing that I possess all (or even the majority) of the answers. Naturally, I have developed my own taxonomic opinions on these various controversial orchid populations and I have expressed those opinions. However, any authority that I might invoke stems not from my professional (or professorial!) status but from the quantity, quality and diversity of the scientific data that I and my

research colleagues have accrued, with the valued assistance of HOS members. I genuinely welcome the appearance of opinions contrary to my own, such as those expressed in the recent *JHOS* articles by Kreutz (2008) and Lewis (2008), and I readily acknowledge the value of publicly documenting variation within orchid species as these and many others have done. Having said this, I will explain in Part 2 of this article how the creation (or the resurrection) of names for highly local and trivially distinct variants can slow the progress of both scientific research and conservation.

References

Bateman, R. M. (2006) How many orchid species are currently native to the British Isles? In: Bailey, J. & Ellis, R. G., eds, *Contributions to taxonomic research on the British and European flora*: 89-110 + Plate 1. Botanical Society of the British Isles, London.

Bateman, R. M. (2007) Whatever happened to the genus *Orchis*? *Orchid Review* 115: 322-329.

Bateman, R. M. (2009) Field-based molecular identification within the next decade? *Journal of the Hardy Orchid Society* 6(1): 31-34.

Brooke, J. (1950) *The Wild Orchids of Britain.* Bodley Head, London.

Cheffings, C. M., Farrell, L., eds (2005) The vascular plant Red Data List for Great Britain. *Species Status* 7: 1-116. JNCC, Peterborough.

Cole, S. (2008) Naming orchid taxa: what are the rules? *Journal of the Hardy Orchid Society* 5(3): 86-90.

Delforge, P. (2006) *Orchids of Europe, North Africa and the Middle East.* A. & C. Black, London.

Dony, J. G., Jury, S. L. & Perring, F. H. (1986) *English names of wildflowers* (2nd edn). Botanical Society of the British Isles, London.

Ehlers, B. K. & Pedersen, H. A. (2000) Genetic variation in three species of *Epipactis* (Orchidaceae): geographic scale and evolutionary inferences. *Biological Journal of the Linnean Society* 69: 411-430.

Ettlinger, D. M. T. (1997) *Notes on British and Irish Orchids.* Dorking, Surrey: Published by the author.

Foley, M. S. Y. & Clarke, S. (2005) *Orchids of the British Isles.* Griffin Press, Cheltenham, Gloucs.

Harrap, A. & Harrap, S. (2005) *Orchids of Britain and Ireland.* A & C Black, London.

Hollingsworth, P. M., Squirrell, J., Hollingsworth, M. L., Richards, A. J. & Bateman, R. M. (2006) Taxonomic complexity, conservation and recurrent origins of self-pollination in *Epipactis* (Orchidaceae). Pp. 27-44 in J. P. Bailey & R. G. Ellis (eds.), *Current taxonomic research on the British and European flora.* Botanical Society of the British Isles, London.

Kreutz, C. A. J. (2005) *Kompendium der Europäischen Orchideen.* Published by the author, Landgraaf, Netherlands.

Kreutz, C. A. J. (2008) Update on British orchids. *Journal of the Hardy Orchid Society* 5(1): 11-16.

Kreutz, C. A. J. & Dekker, H. (2000). *De orchideeën van Nederland*. Published by the author, Landgraaf, Netherlands.

Lewis, L. (2008) Naming new orchid taxa: a reply but not an answer. *Journal of the Hardy Orchid Society* 5(4): 138-143.

Lewis, L. & Spencer, E. J. (2005) *Epipactis phyllanthes* var. *cambrensis* (C.A. Thomas) P.D. Sell and other unusual *Epipactis* at Kenfig National Nature Reserve. *Watsonia* 25: 290-295.

Moore, D. M., Webb, D. A. & Soó, R. de. (1980) CCIII. Orchidaceae. Pp. 325–350 in: Tutin, T. G. et al. (eds.), *Flora Europaea 5*. Cambridge University Press, Cambridge.

Preston, C. D., Pearman, D. A. & Dines, T. D. (2002) *New Atlas of the British and Irish Flora*. Oxford University Press, Oxford.

Schlechter, R. (1919). XLVIII. Mitteilungen über Europäische und Mediterrane Orchideen II. *Feddes Repertorium* 16: 257-292.

Sell, P. D. & Murrell, G. (1996) *Flora of Great Britain and Ireland. 5. Butomaceae–Orchidaceae.* Cambridge University Press, Cambridge.

Squirrell, J., Hollingsworth, P. M., Bateman, R. M., Tebbitt, M. C. & Hollingsworth, M. L. (2002) Taxonomic complexity and breeding system transitions: conservation genetics of the *Epipactis leptochila* complex. *Molecular Ecology* 11: 1957-1964.

Stace, C. A. (1997) *New Flora of the British Isles* (2nd edn). Cambridge University Press, Cambridge.

Tyteca, D. & Klein, E. (2008) Genes, morphology and biology – the systematics of Orchidinae revisited. *Journal Europäischer Orchideen* 40: 501-544.

Young, D. P. (1952) Studies in the British *Epipactis*, III, IV. *Watsonia* 2: 253-276.

Young, D. P. (1962) Studies in the British *Epipactis*, V. *Watsonia* 5: 127-135.

The Princes Risborough Helleborines

Simon Harrap

I have read the correspondence concerning the Princes Risborough helleborines with interest (Cole 2008, Kreutz 2007, Lewis 2008). Although I have not seen the plants in flower (they were in tight bud on my only visit) and have had to rely on photographs, I would like to offer the following observations.

1. The flowers of the Princes Risborough helleborines consistently show either obvious viscidia and cohesive, intact pollinia, or they have had the viscidium and pollinia removed pretty well intact. I have yet to see a photograph of these plants in which the pollinia have obviously crumbled wholesale "*in situ*". In short, the Princes Risborough helleborines appear to be consistently cross-pollinating (allogamous) rather than self-pollinating (autogamous). To my mind, this immediately throws into doubt their identification as Narrow-lipped Helleborine *Epipactis leptochila*.

2. Kreutz (2008) states that the Princes Risborough plants "possess a column capable of cross-pollination which is identical to that of *Epipactis helleborine*". Courtesy of Sean Cole, I have been able to inspect some close-up photographs of the column of plants from Princes Risborough. These show that the anther cap is not stalked as in typical *leptochila*, rather it is firmly attached to the main part of the column as in *helleborine* (see the figure in D.P. Young's seminal 1962 paper).

3. All concerned seem to agree that the Princes Risborough plants have a broad, whitish-pink epichile with the distal end curved back (i.e. the lip is closer to Broad-leaved Helleborine than to Narrow-lipped Helleborine).

Taking the shape of the lip, column structure and allogamous flowers, I can only ask: why are they Narrow-lipped Helleborines? To identify them as that species seems to stretch the definition of *E. leptochila*, perhaps to beyond breaking point. The answer that Kreutz offers is the colour of the base of the pedicel, which is not violet-purple, indicating that they belong to the *Epipactis leptochila* group. I have indeed found the colour of the base of the pedicel to be a useful feature in the identification of *Epipactis* but it varies in ways that have not, to my knowledge, been systematically studied in Britain and it certainly appears to vary *within* some species. For example, in typical *E. dunensis* the pedicel is washed purple at the base, whereas in *E. dunensis* subspecies *tynensis* the pedicel is yellowish-green. In view of this, I think that to pin the identification as *E. leptochila* on this single feature is wrong. In a defence of Kreutz's determination, Lewis (2008) mentions that Narrow-lipped Helleborine may be temporarily ("facultatively") allogamous, and includes an instructive photograph of a plant from Gloucestershire to illustrate his point. I have to accept that Narrow-lipped Helleborine can be facultatively allogamous, but I note that this photograph shows a flower with a long, forward pointing lip. In other words, it is *typical* of Narrow-lipped Helleborine *apart* from the presence of a viscidium and intact

pollinia. Furthermore, I have seen photos of the Princes Risborough plants in which two flowers, spaced 5-6 flowers apart on the spike, both show a viscidium. There may well be a third flower with a viscidium lower down the spike, but I cannot be absolutely sure; all the other flowers have the column obscured. In addition, the photograph on p. 51 of Foley & Clarke (2005), stated by Kreutz to be a Princes Risborough plant, shows three flowers, none at the tip of the spike and none the freshest, all with a well-developed viscidium. Thus, these plants are not "temporarily" allogamous, they are allogamous!

I can only conclude that the identity of the Princes Risborough helleborines is unproven. They could be variant *E. helleborine*, or perhaps hybrid *E. leptochila* x *helleborine*. The occasional appearance of facultative autogamy in *E. leptochila* could be the expression of *E. helleborine* genes; after all, there is nothing to stop a wasp carry the pollinia of early-flowering *E. helleborine* to the flowers of *E. leptochila*). However, these are merely guesses.

One of the Princes Risborough *Epipactis*. flowers from part way down the stem (left) and nearer the tip (above) posses viscidia (black arrow) and intact, well-formed pollinia; they are surely all cross-pollinated. Note also the shape of the lip.
Photo by Mark Lynes

Kreutz has not only determined the Princes Risborough helleborines as *E. leptochila*, but also placed them, albeit tentatively, with var. *cordata*, and I think it is worthwhile exploring this. Var *cordata* was described by Jocelyn Brooke in his "*The Wild Orchids of Britain*" (Brooke 1950). This well researched and readable book was illustrated with lovely watercolours by Gavin Bone. It is worth noting that Brooke was a man (*contra* Kreutz 2008) and a passionate orchidophile, best-known for his semi-autobiographical novel "*The Military Orchid*" (Brooke 1948). Brooke had a special interest in *Epipactis* and, together with Francis Rose, he distinguished the species *Epipactis vectensis* from *E. leptochila*, with which it had previously been confused (Brooke & Rose 1940). Subsequent taxonomic revision has seen this orchid become a variety of what is now known as the Green-flowered Helleborine, *Epipactis phyllanthes* var. *vectensis*.

Epipactis leptochila (left) and *Epipactis vectensis* (right). An illustration by Gavin Bone from "*The Wild Orchids of Britain*" by Jocelyn Brooke, published by The Bodley Head. Reprinted by permission of The Random House Group Ltd.

*E. leptochila v*ar. *cordata*, as far as I can see, is mentioned just twice by Brooke. On p. 47 he states "A variety occurs with lanceolate leaves and a broader, *cordate* lip, the flowers not opening so widely (var. *cordata*)." Then, on p. 123 in Appendix A, a formal description is given:

"*Epipactis lelptochila* Godfrey.

(a) *E. leptochila* (Typical form: Horsley, Surrey): Lower leaves broadly ovate, lip narrowly acuminate.

(b) var. *cordata* Brooke. Var. nov.

Planta parva, gracilis, foliis ellipticolanceolatis; flores praeter solitum minores, non plene aperti, labello cordato.

Lip more broadly acuminate, sepals less spreading. Lower leaves elliptico-lanceolate."

That's it! There is no type locality and no type specimen, just a brief description in Latin (as is still required by the International Code of Botanical Nomenclature) and in English. The lack of a type makes it hard to be sure exactly what Brooke was describing. Young (1962) notes that "the colony on which this was based has disappeared, and no specimens or illustrations survive". Despite the lack of detail, I believe that we can be reasonably sure what he was *not* describing. Brooke had studied *Epipactis* carefully, and at several points in his various species text he goes into detail regarding the precise shape of the column. Also, he was very clear about the distinction between the self-pollinating (autogamous) and cross-pollinating (allogamous) species. I think it would be extraordinary if he did not mention that his var. *cordata* was allogamous, even if temporarily! In addition to this, the Princes Risborough plants do not have the sepals "less spreading" with the flower "not opening so widely" nor, it seems, flowers that are smaller than normal. Hence, to place them, even tentatively, with "var. *cordata*" seems to be a leap in the dark. Indeed, in view of the uncertainty as to exactly what was being described, the name *cordata* should be quietly forgotten (see Bateman 2009a, 2009b). If the Princes Risborough helleborines

were to prove worthy of a varietal name, it would make much more sense to coin a new one, with a full published description, photographs and a type specimen.

Many thanks to Mark Lynes for sparking my interest in the first place and letting me see his photos, and to Sean Cole for helpful comments and sight of his pictures and Richard Bateman for helpful comments and a preview of his forthcoming articles.

References

Bateman, R.M. (2009a) What's in a Name? 1. The Heavy responsibility of Using a Previously Described Name. *Journal of the Hardy Orchid Society* 6(2): x-x.

Bateman, R.M. (2009b) What's in a Name? 2. The Even Heavier Responsibility of Coining a New Name. *Journal of the Hardy Orchid Society* 6(3): in press.

Brooke (1948) *The Military Orchid* The Bodley Head, London. [reprinted in *The Orchid Trilogy* (1981) and *The Military Orchid and Other Novels* (2002) Peguin Books.]

Brooke, J. (1950) *The Wild Orchids of Britain* The Bodley Head, London.

Brooke, J. & Rose, F. (1940) A new species of British *Epipactis*. J. Bot., Lond. 78: 81-89.

Cole, S. (2008) Naming orchid taxa: what are the rules? *Journal of the Hardy Orchid Society* 5(3): 86-90.

Foley, M. S. Y. & Clarke, S. (2005) *Orchids of the British Isles*. Griffin Press, Cheltenham, Gloucs.

Kreutz, C.A.J. (2008) Update on British Orchids. *Journal of the Hardy Orchid Society* 5 (1): 11-16.

Lewis, L. (2008) Naming new orchid taxa: a reply but not an answer. Journal of the Hardy Orchid Society 5(4): 138-143.

Young, D.P. (1962) Studies in the British *Epipactis*. V. *Epipactis leptochila*; with some notes on *E. dunensis* and *E. mulleri. Watsonia* 5: 127-135.

OrchidIreland

Tom Curtis and Robert Thompson

"Orchid**Ireland**" is a four year cross-border project, funded by the National Parks and Wildlife Service, Northern Ireland Environment Agency, with support from the Ulster Museum and the National Biodiversity Data Centre. Systematic recording of Ireland's flora and fauna, which includes mapping species distribution, forms a considerable part of conservation work currently undertaken throughout the island of Ireland. Much of our present knowledge and understanding of our native orchid flora is based either on historical data, or in some cases recent research on a number of key species. Despite increased interest in this fascinating group of plants, there are considerable gaps in our knowledge, and understanding of the ecology and distribution of Ireland's wild orchids.

The primary aim of the "Orchid**Ireland**" project is to determine the current status and distribution of the orchid taxa throughout the island of Ireland.

Other aims of the project include:

- Collating the existing orchid data set and other related information onto the recorder database at the Centre for Environmental Data and Recording (CEDaR).
- Engaging new and existing orchid recorders and provide training through field workshops where appropriate.
- Undertaking field recording and habitat surveys throughout Ireland.
- Providing a web site (http://www.habitas.org.uk/orchidireland) to aid identification and to disseminate information on the project and Ireland's taxa.

Bee Orchid, *Ophrys apifera,* in Thompson's Quarry, County Armagh, Ireland
Photo by Robert Thompson

The Orchids of Ireland

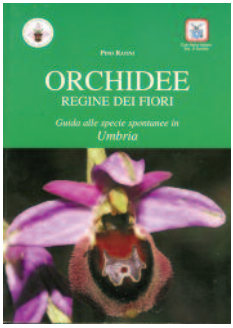
"*The Orchids of Ireland*" by Tom Curtis and Robert Thompson is a book for naturalists, biologists, gardeners and all those who have an interest in this fascinating and attractive group of wild Irish plants and wish to improve their identification skills in the field. There are comprehensive accounts for all species, subspecies and varieties, including their key identification features, comparisons with similar species, flowering periods, salient observations, habitat preferences, current status and distribution

maps of all the Irish taxa. The introductory sections of the book include information on orchid morphology, habitat diversity and ecology, conservation, a key to all taxa and a full checklist of all orchids found in Ireland. The book is lavishly illustrated with colour photographs of all species including a wide selection of orchid habitats. Publication by National Museums Northern Ireland is expected in late May.

For further information about the book, the "Orchid**Ireland**" project or to participate in "Orchid**Ireland**" contact Dr Damian McFerran, Project Manager Centre for Environmental Data and Recording (CEDaR), National Museums Northern Ireland, Cultra, Holywood, County Down BT18 QEU Email: damian.mcferran@nmni.com

Book Review: Orchidee Regine dei Fiori

Paul Harcourt Davies



"*Orchidee Regine dei Fiori: A Guide to the indigenous species in Umbria*" by Pino Ratini. 192 pp. 18Euro plus P&P (registered parcel) 9Euro or 12Euro (2 copies).from Mauro Biagioli, Via Settesoldi 36, 59100 Prato, Italy. Tel / Fax 00 39 574401426 mauro.biagioli @ giros.it

They do say that if you give you receive and, true or not, the fact that we mounted an exhibition of photographs to help a local conservation group afforded contact with two other "orchidiots" (the apt Italian term for those of us afflicted). And thus we met first Dr Pier Luigi Pacetti, excellent photographer with a research background in mycorrhizal cultivation of orchids for conservation and through him Pino Ratini, president of CAI Umbria (Club Alpino Italiano), a tireless hiker and expert field naturalist who has recently published a very well illustrated guide to the orchid flora of Umbria. Within the HOS there are many who love orchid books and this new volume, privately printed, is a worthy addition to the bookshelf. Many books in Italy would not be published were it not for the dedication of people willing to take on a project and work the system tirelessly to secure funding – in this case from CAI (Club Alpino Italiano – Spoleto division) and endorsement from GIROS (the Italian national wild orchid society). It is a much more hands-on approach than most UK publishing with the author responsible for much of the editing and layout, too.

The photographs that form the most obviously attractive element of this book were, for the most part, taken by Pino Ratini, working with both film and digital cameras, and they give the reader an idea of the great diversity of orchid species to be found in Umbria, a region not often on the list of destinations for orchid holidays. The mountains of Umbria reach considerable heights, in the Sibillini for example where

Orchis pallens and *Nigritella nigra* flower, and descend to levels where *Ophrys* abound; Umbria is land-locked but the Mediterranean is not far away. Also illustrated is a good selection of hybrids, albinos, the chlorantha form of several *Ophrys* and various aberrant flowers – peloric and semi-peloric *Ophrys* for example. Interestingly, in Italian the epithet "lusus" is still maintained though it has long disappeared from English texts. Thus you will find *Ophrys apifera* lusus *trollii* and not var. *trollii* suggesting that it is little more than an aberrant. Pictures constitute a universal language – the text is in Italian, but so many of the botanical terms we use come from Latin (and were originally lifted from Greek) that it is easy to make a "stab" at the sense. For those who read Italian, descriptions are accurate, succinct and locality details are general but helpful.

The book is arranged with text on the left of a spread, usually with a small picture of flowers and a larger whole page illustration on the right. Nomenclature is traditional in that none of the changes of Bateman *et alia* are incorporated, nor is there a Delforgian proliferation of species, though I have no doubt that if some distinctive populations of *Ophrys holserica* were subjected to scrutiny they might be elevated to specific status: fortunately this has not yet happened. There is a fashion in Italy for regional guides and some others owe more to the fact that someone knew someone – the original photographs can be hopeless and it is a sadness that trees died to produce such a book. However, this is different: a well-illustrated orchid book by a lifelong naturalist and photographer. Pier Ratini happens to have a passion for orchids – and for alpines (he is an authority on Italian *Campanulas*) as well as being an expert mycologist (an Italian passion) and cook – naturally.

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'Soryu' (Blue Dragon) is a new selection of a form found in Honshu with lavender-blue, widely flared flowers. Propagated from seed but selected to ensure consistency in flower colour.

B. striata 'Tri-Lips'
There are a few examples of 'tri-lip' forms of orchids but this is the only one found in Bletilla. Purplish pink with white inside the lips. Vigorous and as easy to grow as the species.

Cremastra appendiculata
Woodland orchid from Japan with 30cm spikes of showy peach/buff-coloured flowers.

Dactylorhiza aristata and D. aristata f. alba
Terrestrial orchid with rose-purple flowers in late spring. The white flower form is very rare.

Eleorchis japonica and E. japonica f. alba
This is a moisture loving bulbous orchid with dark pink flowers, closely related to Pogonia japonica. The white flowered form is very rare even in Japan.

Gymnadenia camtschatica f.alba and G. conopsea
Very rare white selection of the species with attractive compact flower spikes. *G. conopsea* is similar but with longer spikes of pale pink flowers.

Liparis kumokiri
Widespread Asian species with medium green leaves ruffled at the edges and tall spikes of greenish-while flowers in summer.

Platanthera metabifolia
White flowered elegant hardy Platanthera species from Northern Japan.

L. makinoamia 'Kuro Suzu'
Spectacular dark flowered dwarf species clone with bright green leaves.

Cypripediums

Cypripedium x columbianum, C. debile, C. montanum, C. parviflorum var. pubescens, C. x ventricosum 'Pastel', C. Sebastian, Frosch Hybrids